



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,282	02/26/2002	Yoshitaka Takezawa	NIP-261	5347
7590	04/06/2004		EXAMINER	
MATTINGLY, STANGER & MALUR, P.C. 1800 Diagonal Road, Suite 370 Alexandria, VA 22314			MONBLEAU, DAVIENNE N	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/082,282	TAKEZAWA ET AL.	
	Examiner	Art Unit	
	Davienne Monbleau	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 February 2002.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 1, 5-8 is/are allowed.
 6) Claim(s) 2-4 and 9 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 26 February 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1.) Certified copies of the priority documents have been received.
 2.) Certified copies of the priority documents have been received in Application No. _____.
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it is three paragraphs and should only be one. Correction is required. See MPEP § 608.01(b).

In the *Summary of the Invention* section in the specification, the first and second paragraphs are identical. One of the paragraphs should be deleted or amended.

Each page of the specification has two different page numbers. For example, the first page of the body of the specification has page "1" at the top and page "2" on the bottom left.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 6/29/01. It is noted, however, that applicant has not filed a certified copy of the 2001-197654 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). Claim 9 is directed to a method of managing deterioration of a cable sheathing insulation material. Claim 1, from which it appears Claim 9 depends, is directed towards a diagnostic system for diagnosing deterioration of an article. As

such, since Claim 9 does not further limit the device of Claim 1, the scope of the claim is unclear. These limitations will not be further treated on the merits.

Furthermore, please note that if Claim 9 is amended into proper independent form that it may be subject to restriction because this method of managing deterioration of a cable sheathing insulation material does not require the diagnostic system elements of Claim 1.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim is directed to neither a “process” nor a “machine,” but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Gee (US 3,904,293).

Regarding Claim 2, *Gee* discloses in Figure 2 a diagnostic system for diagnosing quality of an article (16) comprising a light source (10) for irradiating irradiation light having

polarization onto a surface of the article (16), a light receiving part (32) for receiving the reflected light from said article, a measurement part (36) for measuring a variation of polarized light between said irradiated light and said reflected light, and diagnosing a quality of said article from said measured variation (column 1 lines 9-21 and lines 43-50). The quality is determined by the textural characteristics of the surface.

Regarding Claim 3, *Gee* discloses in Figure 2 a diagnostic system for diagnosing material of an article (16) comprising a light source (10) for irradiating irradiation light having polarization onto a surface of the article (16), a light receiving part (32) for receiving the reflected light from said article, a measurement part (36) for measuring a variation of polarized light between said irradiated light and said reflected light, and diagnosing a quality of said article from said measured variation (column 1 lines 9-21 and lines 43-50). The material is diagnosed from its textural characteristics of its surface.

Regarding Claim 4, *Gee* discloses in the abstract analyzing the degree of depolarization of the polarized incident light that is irradiated on the surface of the article (16).

Allowable Subject Matter

Claims 1 and 5-8 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding Claim 1, the cited prior art of record does not teach or fairly suggest a diagnostic system for diagnosing deterioration of an article comprising, along with the other claimed features, a measurement part of measuring a variation of polarized light between said irradiated light and said reflected light and a diagnosing part for diagnosing a deterioration degree of said article from said measured variation.

Regarding Claims 5-8, the cited prior art of record does not teach or fairly suggest a method of diagnosing deterioration of an article comprising, along with the other claimed features, measuring a depolarization degree of polarized light of said reflected light, determining a first deterioration degree of said article by executing comparison operation using a pre-stored relationship between depolarization degrees of polarized light and deterioration degrees formed using a deteriorated material of the same kind as a material of said article, and determining a comprehensive deterioration degree of said article from the determined results of the first deterioration degree and a second deterioration degree based on a pre-stored relationship.

The cited prior art of record teaches detecting a defect of a surface, such as a particle or a crack, by measuring the difference in polarization from irradiated light and reflected light. It does not teach a deterioration factor of the article, which is more of a property of the material of the article.

The advantages of these features are in the specification on pages 2-8. In particular, the Applicant states in the specification on page 8 that by identifying a deterioration factor of an article, an action for excluding the deterioration factor is made. This suppresses the deterioration and improves the durability of the system and reduces the cost.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vurens (US 6,307,627) teaches an optical measurement system using polarized light for evaluating the surface of a substrate or the thickness and optical characteristics of a thin film later overlying the substrate. Eremin et al. (US 6,169,601) teaches a method and apparatus for distinguishing particles from subsurface defects on a substrate using polarized light. Junichi (JP 11-235097) teaches a deterioration diagnostic system comprising measuring the light transmission loss difference for irradiated light on an article/substance. Hiroyuki (JP 11-118773) teaches a method for diagnosing a deterioration of an electric insulation layer in a cable comprising measuring the wave reflecting time at the cable. Yosuke (JP 10-115601) teaches a method and apparatus for diagnosis of degradation of wire cable comprising measuring changes in elastic waves that are incident upon said cable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Danielle Menbleau
DNM


Stephone B. Allen
Primary Examiner